

## PRODUCT DATA SHEET

# SARNAFIL® G 410 SA (SELF-ADHERED) ENERGYSMART ROOF® MEMBRANE



Sarnafil G 410 SA EnergySmart Roof Membrane is a PVC thermoplastic membrane with a factory applied pressure-sensitive adhesive backing and siliconized polyethylene release liner. It is produced with an integral fiberglass mat reinforcement for excellent dimensional stability, is highly reflective, guaranteed for thickness, with heat-weldable seams, and a unique lacquer coating applied to the top of the membrane to reduce dirt pick up.

## PRODUCT INFORMATION

### USES

Sarnafil G 410 SA EnergySmart Roof Membrane is used in adhered systems for new roofs, reroofs, and all systems for flashings.

### AREAS OF APPLICATION

#### Sika Approved Insulations and Cover Boards

- Polyisocyanurate Insulations
- High Density Polyisocyanurate Roof Boards
- DensDeck™ Prime
- Plywood

### FEATURES / BENEFITS

- VOC free and odor free
- Factory applied adhesive to reduce on-site installation labor and ensure uniform adhesive application
- Low temperature application limit of 20°F (-7°C)
- Guaranteed thickness
- Excellent dimensional stability
- Factory applied lacquer coating to reduce dirt pick up
- Proven membrane performance
- Highly reflective
- Heat welded seams
- Superior fire resistance

### TESTS

### CODES / APPROVALS

- FM Global
- Underwriters Laboratories
- Underwriters Laboratories of Canada
- NSF/ANSI 347: Platinum Certified
- ENERGY STAR®
- California Title 24
- LEED / Green Globes

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## PRODUCT DATA

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### FORM

### COMPOSITION

High-quality PVC membrane containing ultraviolet light stabilizers, flame retardant, fiberglass reinforcement, with a unique lacquer coating on the top surface and pressure-sensitive adhesive with a removable siliconized polyethylene release liner on the back surface.

### COLOR

- Top: White
- Bottom: Gray
- Pressure Sensitive Adhesive: Clear

### PACKAGING

- 60 mil (1.5 mm) Membrane  
6.56 ft x 90 ft (2 m x 27m) roll 263 lbs (119 kg) per roll,  
15 rolls per pallet
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### STORAGE

### STORAGE CONDITIONS

Store rolls on pallets and fully protected from the weather with clean canvas tarpaulins. Unvented polyethylene tarpaulins are not accepted due to the accumulation of moisture beneath the tarpaulin in certain weather conditions that may affect the ease of membrane weldability.

**TECHNICAL DATA****TYPICAL PHYSICAL PROPERTIES\***

Properties	ASTM Test Method	ASTM Type II D4434 Spec. Requirement	Typical Results
Overall Thickness, mil	D751	45	60
Thickness Over Scrim, mil	--	16	27
Reinforcing Material	--	--	Fiberglass
Breaking Strength, lbf/in (N)	D751	55 (245)	80 (356)
Elongation at Break, % M. D. <sup>1</sup> & C.M.D. <sup>1</sup>	D751	250 & 220	250 & 220
Seam Strength, % of original <sup>2</sup>	D751	75	Pass
Retention of Properties After Heat Aging	D3045	--	--
Tensile Strength, % of original	D751	90	Pass
Elongation, % of original	D751	90	Pass
Tearing Resistance, lbf (N)	D1004	10 (45)	17.5 (78)
Low Temperature Bend, -40°F (-40°C)	D2136	Pass	Pass
Accelerated Weathering Test, Hours (Florescent Light UV exposure)	G154	5,000	10,000
Cracking (7x magnification)	--	None	None
Discoloration (by observation)	--	Negligible	Negligible
Crazing (7x magnification)	--	None	None
Linear Dimensional Change, %	D1204	0.1	-0.02
Weight Change After Immersion in Water, %	D570	± 3.0	1.9
Static Puncture Resistance, lbf (kg)	D5602	33 (15)	Pass
Dynamic Puncture Resistance, ft-lbf (J)	D5635	7.3 (10)	Pass

\*Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions, and curing conditions.

<sup>1</sup>M.D. = Machine Direction, C.M.D. = Cross Machine Direction.

<sup>2</sup>Failure occurs through membrane rupture not seam failure.

EnergySmart Colors	INITIAL SOLAR REFLECTANCE <sup>1</sup>	3-YEAR SOLAR REFLECTANCE <sup>1</sup>	INITIAL THERMAL EMITTANCE <sup>2</sup>	3-YEAR THERMAL EMITTANCE <sup>2</sup>	INITIAL SOLAR REFLECTANCE INDEX	3-YEAR SOLAR REFLECTANCE INDEX
EnergySmart White <sup>3</sup>	0.85	0.74	0.86	0.84	107	90

<sup>1</sup>Solar Reflectance testing according to ASTM C1549.

<sup>2</sup>Thermal Emittance testing according to ASTM C1371, Slide Method.

<sup>3</sup>EnergySmart White membranes meet ENERGY STAR®, LEED, Green Globes, and California's Title 24 criteria for Low and Steep Slope applications.

## SYSTEM INFORMATION

### APPLICATION INSTRUCTIONS

### APPLICATION

Sarnafil G 410 SA EnergySmart is installed after proper preparation of the approved substrate. The membrane is unrolled and positioned in place with the selvage edge lapping the adjacent roll to allow for the 3 in (75 mm) side lap. Fold back half of the sheet onto itself in the long direction and carefully cut the release liner with the cutting tool provided by Sika without damaging the membrane. Peel back 3 in - 5 in (75 mm - 127 mm) of the release liner and press firmly onto the substrate. Weight may be necessary on the membrane when first starting. Continue removing the release liner from the membrane in a smooth, wrinkle-free manner while maintaining the 3 in (75 mm) side lap. Immediately roll the membrane with a minimum 100 lb (45 kg) steel roller. Remove the remaining release liner from the other half of the membrane using the above process and immediately roll the membrane with the steel roller. Sarnafil G 410 SA EnergySmart side lap seams are heat-welded together by trained operators using hot-air welding equipment. End laps and all cut edges are butted together and an 8 in (203 mm) Sarnafil G 410 coverstrip is hot-air welded over the butt and cut edge joints.

### PRODUCT LIMITATIONS

### LIMITATIONS

- The ambient and substrate temperature must be 20°F (-7°C) or above during application.
- Not to be applied directly to concrete decks, lightweight insulated concrete decks, gypsum decks or polystyrene products.
- Sarnafil membranes are incompatible with asphalt, coal tar, heavy oils, roofing cements, creosote and some preservative materials.
- A static electric charge may develop when removing the release liner from the pressure-sensitive adhesive on the back of the membrane. Care should be used when removing and handling the release liner to avoid ignition. Lids must be closed on any flammable products and a fire extinguisher should be readily available.

### AVAILABILITY

From Sika Corporation – Roofing Authorized Applications for use within Sarnafil systems.

### MAINTENANCE

Standard maintenance of Sarnafil systems should include regular inspection of flashings, drains, and termination sealants at least twice a year and after each storm.

### WARRANTY

Upon successful completion of the installed roof by the Sika Authorized Applicator, Sika Corporation will provide a warranty to the Building Owner via the Sika Authorized Applicator.

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**LEGAL NOTES**

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